

COMMUNICATION NETWORKS 3B (CMN03B1 CMN33B3)

**FACULTY OF MANAGEMENT  
NOVEMBER 2014 EXAMINATION****DEPARTMENT OF APPLIED INFORMATION SYSTEMS**

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**MODULE** : COMMUNICATION NETWORKS 3B  
**CODE** : CMN03B1 / CMN33B3  
**DATE** : 13 NOVEMBER 2014  
**DURATION** : 3 HOURS  
**TIME** : 12:30 – 15:30  
**TOTAL MARKS** : 71

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**EXAMINER** : MR J SOOKHA  
**EXTERNAL MODERATOR** : MR NSM SHONGWE  
**NUMBER OF PAGES** : 2

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**INSTRUCTIONS TO CANDIDATES:**

- Question papers must be handed in.
- This is an open book assessment.
- Read the questions carefully and answer only what is asked.
- Number your answers clearly.
- Write neatly and legibly
- Structure your answers by using appropriate headings and sub-headings.
- The general University of Johannesburg policies, procedures and rules pertaining to written assessments apply to this assessment.

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**QUESTION 1**

Security defenses should be based on five fundamental security principles: layering, limiting, diversity, obscurity and simplicity. Explain each of these principles with examples to substantiate your answers.

[10]

**QUESTION 2**

List and explain 3 types of DoS attacks

[9]

**QUESTION 3**

Security posture, Configuring Controls and Hardening are the 3 techniques that can be used in mitigating attacks. Explain each of the techniques, stating the key reasons for implementation as well as the advantages to using these techniques.

[15]

**QUESTION 4**

Class sizes are increasing each year, and in turn the amount of data storage capacity needs to increase with the demand.

What are the benefits of cloud storage/computing and would it be feasible?

[8]

**QUESTION 5**

A new startup has asked for your input regarding a vulnerability assessment that needs to be done on their company network. List & explain the 7 techniques & tools that they can use to aid in their understanding of what needs to be done to make their network more secure

[21]

**QUESTION 6**

Within a vulnerability assessment, explain the proper use of penetration testing versus vulnerability scanning

[8]

[71]